

CLAIMS

1. An apparatus in a total knee replacement and arthroplasty operation for measuring a joint gap and ligament balance between a osteotomized surface at a femoral distal end and a osteotomized surface
5 at a tibial proximal end, said apparatus comprising:
- a base;
 - a first engaging member on said base for an engagement with said osteotomized surface at the tibial proximal end;
 - a moving body;
 - 10 a second engaging member on said moving body for an engagement with said osteotomized surface at said femoral distal end, said second engaging member being rotatable on the moving body about an axis substantially parallel with respect to said osteotomized surface at the femoral distal end;
 - 15 said base and moving member being connected with each other so that the first and second engaging members are selectively moved between a direction where the first and second engaging members are moved toward each other and a direction where the first and second engaging members are moved away from each other;
 - 20 a driving member, by which said moving member is moved with respect to the base so that the first and second engaging members are moved in the directions away from each other motor;
 - an locking member on the moving body, said locking member engaging with the driving member for locking the movement of the driving member
25 in the directions where the first and second engaging members are moved toward each other;
 - a first indicator indicating the value corresponding the spacing between the first and second engaging members, and:
 - a second indicator indicating the value corresponding the angle
30 between the first and second engaging members,
 - said first and second engaging members being under an offset arrangement with respect to said base and moving body, respectively.
2. An apparatus according to claim 1, wherein said locking member is a ratchet member on the moving body, and wherein said driving member
35 includes a ratchet wheel with which the ratchet member is engaged for preventing the ratchet wheel from being rotated for locking the movement

of the driving member in the direction where the first and second engaging members are moved toward each other.

3. An apparatus according to claim 1, wherein said moving body include a shaft which is inserted to a bore in the base, and wherein
5 said first indicator comprise a scale on the shaft.

4. An apparatus according to claim 1, wherein said second indicator includes a scale plate fixed on an outer side of the moving body and an indicating member an indicating member extending from the second engaging member toward the indicator plat, the indicating member having
10 an end which is located along the scale plate.

5. An apparatus used in a total knee replacement and arthroplasty operation for measuring a joint gap and ligament balance between a osteotomized surface at a femoral distal end and a osteotomized surface at a tibial proximal end, said apparatus comprising:

15 a femoral component for an insertion to the osteotomized surface at a femoral distal end ;

a base;

a first engaging member on said base for an engagement with said osteotomized surface at the tibial proximal end;

20 a moving body;

a second engaging member on said moving body for an engagement with said osteotomized surface at said femoral distal end, said second engaging member being for mounting thereon said femoral component, said second engaging member being rotatable on the moving body about an axis
25 substantially parallel with respect to said osteotomized surface at the femoral distal end;

said base and moving member being connected with each other so that the first and second engaging members are selectively moved between a direction where the first and second engaging members are moved toward each other and a direction where the first and second engaging members
30 are moved away from each other;

a driving member, by which said moving member is moved with respect to the base so that the first and second engaging members are moved in the direction away from each other motor;

35 an locking member on the moving body, said locking member engaging with the driving member for locking the movement of the driving member

in the direction where the first and second engaging members are moved toward each other;

a first indicator indicating the value corresponding the spacing between the first and second engaging members, and:

5 a second indicator indicating the value corresponding the angle between the first and second engaging members.

6. A device according to claim 5, wherein said second engaging member has, at its surface remote from the first engaging member, a fitting part, and wherein the device further comprises a auxiliary guiding member
10 for a fitted engagement with said fitting part on the second engaging member and engaged with the femoral component.

7. A device according to claim 6, wherein said fitting engagement between the fitting part of the second engaging member and the auxiliary guiding member is done under a snap engaging fashion.

15 8. An apparatus according to claim 5, wherein said locking member is a ratchet member on the moving body, and wherein said driving member includes a ratchet wheel with which the ratchet member is engaged for preventing the ratchet wheel from being rotated for locking the movement of the driving member in the direction where the first and second engaging
20 members are moved toward each other.

9. An apparatus according to claim 5, wherein said moving body include a shaft which is inserted to a bore in the base, and wherein said first indicator comprise a scale on the shaft.

25 10. An apparatus according to claim 5, wherein said second indicator includes a scale plate fixed on an outer side of the moving body and an indicating member an indicating member extending from the second engaging member toward the indicator plat, the indicating member having an end which is located along the scale plate.